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STRAWBERRY BLACK ROOT

The Strawberry Leaf Spot is regarded as the commonest and most troublesome disease of this crop. However, there are frequent complaints about plants which shrivel up and die out after blossoming or during the fruit season, and in some cases the loss in this way is quite severe. Such plants start well in spring and bloom normally but as soon as the weather begins to get warm and dry the leaves roll, brown at the edges, and the older ones die off one by one very rapidly. In milder cases only a few lower leaves are lost but the trouble may be so severe that the whole plant withers and dies. The fruit on affected plants is either stunted and of poor quality or the whole of the fruit set may fail to mature, drying up before it can ripen.

Three causes have been mentioned for this trouble. One is winter killing, or more properly the killing due to spring frosts after a warm period has started the plants into growth. This type of Black Root, as the trouble has come to be known, can be overcome by the use of a mulch of straw, leaves or strawy manure put on after the ground is well frozen in winter. By its shading effect this mulch prevents the heat from spring suns reaching the soil and thus delays early growth until danger from frost is over.

Other cases of Black Root have been attributed to the effects of bacteria but little is known about the parasite concerned and to what extent it is responsible for the conditions mentioned.

A third cause given for the trouble is attacks of the soil fungus *Rhizoctonia* well known as a parasite on violets, cabbage, and other crop plants, particularly potatoes. On potato plants the fungus attacks the stem tissue just below ground producing a wilting effect, and it is said to bring about much this same type of injury in the case of strawberries. The killing of the outer layers of the root-stem produces the blackening effect so characteristic of the disease. It is stated that some distinction can be made between *Rhizoctonia* injury and winter killing since the former is likely to be spotty in the field while the latter is likely to occur in definite areas.

Control of Black Root due to *Rhizoctonia* has not been well worked out but the use of clean unadulterated roots for setting plants is recommended as well as a short rotation. Strawberries in such cases should be planted on grain or other land, but not on the same strawberry bed for a few years.

